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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,318	10/12/2000	Sadeg M. Faris	105-096USA000	8360

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EXAMINER

YUAN, DAH WEI D

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 12/10/2001

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/689,318

Applicant(s)

FARIS ET AL.

Examiner

Dah-Wei D. Yuan

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21(second claim 21), 23, 30, 31, 38, 43-46, 52, 53, 60, 62, 64 is/are rejected.
- 7) ☒ Claim(s) 20, 21, 24-29, 32-37, 39-42, 47-52, 54-59, 61, 63 and 65 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6. 6) ☐ Other:

FUEL CELL SUPPORT AND ELECTRICAL INTERCONNECTOR

Examiner: Yuan

S.N. 09/689,318

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December 3, 2001

Claim Objections

1. The use of the term "thereby" in claim 7 is improper. It is noted that the courts have held that functional "whereby" statements do not define any structure, and accordingly cannot serve to distinguish over the prior art. See In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

There are two independent claims numbered as "21".

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16,18,23,43-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "desired" in claims 1,13,18,23,43,45 is a relative terms which render the claims indefinite. The term "mildly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1,15,17-19,21(second claim 21),23,30,31,38,43,46,52,53,60,62,64 are rejected under 35 U.S.C. 102(b) as being anticipated by Stone et al. (US 5,415,949).

Stone et al. teach a metal air cell comprising a flexible, recloseable pouch, which is made of a gas-permeable and electrolyte-impermeable material, forming the cathode of the cell, a metal plate anode, and spacers physically isolating the anode from the cathode. A plurality of such cells are preferably stacked into a multi-cell battery, and compressed in a harness to maintain proper anode-cathode spacing as the anode is consumed. As shown in Figure 5, anode (44) preferably comprises a flat metal plate with a highly conductive terminal (50) extending from the cell. A conductor extends from terminal (80) of the current collector to a cathode terminal (84) on the exterior of pouch cathode (42). The cells in the stack are electrically connected in series with a plurality of bus straps (101), extending between the cathode terminal of one cell, and the anode terminal of the next adjacent cell. The structure of bus straps and housing (406) are considered to be equivalent to a connector block, which independently and releasably engage the cathode and anode terminal elements. Spacing (104) for air movement is provided between adjacent metal air cells. See Abstract, Column 6, Lines 17-19, Column 7, Lines 26-28, 45-60, Figures 4 and 10.

Allowable Subject Matter

7. Claims 2-14,16,20,21,24-29,32-37,39-42,44,45,47-51,54-59,61,63,65 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 2-14,16,49-51 would be allowable because the closest prior art of record, Stone et al., does not disclose or suggest the conductor block is elongated along a longitudinal axis and comprises at least two rows of apertures extending along the axis. Claims 20,21,24-29,39,40,41,42,44,45, 47,48 would be allowable because the closest prior art of record, Stone et al., does not disclose or suggest both the anode and cathode support structures having a post that is slidably inserted into an aperture in the connector block, respectively. Claims 32-34,36,54-56 would be allowable because the closest prior art of record, Stone et al., does not disclose or suggest the use of a support tray to define an air duct. Claims 35,57 would be allowable because the closest prior art of record, Stone et al., does not disclose or suggest the connector having two lateral stepped ledges. Claims 37,59 would be allowable because the closest prior art of record, Stone et al., does not disclose or suggest the connector block is electrically insulating. Claim 58 would be allowable because the closest prior art of record, Stone et al., does not disclose or suggest the use of a co-fitting key element in the support tray. Claims 61,63,65 would be allowable because the closest prior art of record, Stone et al., does not disclose or suggest the use of hydrogen as fuel for the battery.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (703) 308-0766. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gabrielle Brouillette can be reached on (703) 308-0756. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2340.

Dah-Wei D. Yuan
December 4, 2001


GABRIELLE BROUILLETTE
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